

CLAIMS

1. A process for the obtainment of ozonized oils and fats, characterized by the ozonation of vegetable oil or fat emulsion in a bubbling reactor, by passing the ozone–oxygen or ozone-air gas mixtures through it, at a controlled temperature.
- 5 2. A procedure according to the Claim 1, characterized by the ozonation of vegetable oil or fat in liquid phase.
3. A procedure according to the Claims 1 – 2 characterized by an emulsion composed by water and vegetable oil or fat being the water in a 1 – 50 % relation in volume.
4. A procedure according to the Claims 1 - 3 characterized by a reaction temperature
10 between 30 – 50 °C.
5. A procedure according to the Claims 1 – 4 characterized by the use of an air flow [L/h] – vegetable oil or fat volume [L] relation between 100 and 500.
6. A procedure according to the Claims 1 – 5 characterized by the use of a washing flask with distilled water between the ozonator and the reactor, when air or oxygen-enriched
15 air are used as a source of oxygen for obtaining ozone.
7. A procedure, according to the Claims 1 – 6, characterized by the ozonation of the following vegetable oils and fats: sunflower oil, theobroma oil, palm oil, olive oil, soybean oil, jojoba oil, coconut oil, canola oil, corn oil, sesame oil, thistle oil, wheat oil, linseed oil, castor oil, rice oil, sugarcane oil, pumpkin oil, peanut oil and almond oil.
- 20 8. A procedure according to the Claims 1 – 7 characterized by the use as the quality parameters for the product: the peroxide index (PI) and the acid index (AI) and/or the concentration of aldehydes and/or the viscosity.
9. A procedure according to the claims 1 – 8 characterized by vegetable oils and fats with a PI between 200 – 1200 units.
- 25 10. A procedure according to the claims 1 – 9 characterized by the formation of the α -hydroxi-hydroperoxides.
11. Ozonized sunflower oil, according to the Claims 1 – 10 characterized by presenting a PI between 200 – 800 units, an AI lower than 15 units, concentration of aldehydes between 0.4 – 0.9 mmol/g and the viscosity between 100 - 500 mPa.s.
- 30 12. A product with biological activity, obtained from the ozonation of theobroma oil, according to the Claims 1 – 10 characterized by a PI between 1000 – 1200 units and an AI lower than 30 units.

13. Use of ozonized oil or fat, according to the Claims 1-10, for the treatment of diverse ophthalmologic diseases, such as: superficial keratitis, conjunctivitis of different etiologies, epidemic hemorrhagic conjunctivitis and others, keratoconjunctivitis, corneal ulcers and blepharitis, characterized by the use of an ozonized vegetable oil or fat with a PI between 200 – 400 units and an AI lower than 10 units.
14. Use of any ozonized vegetable oil or fat, according to the Claims 1-11, for the treatment of the following stomatological or oropharyngeal cavity diseases, such as: acute herpetic gingivostomatitis, acute ulcer-necrotizing gingivitis, infected radicular ducts, alveolitis, dentinal hyperesthesia, dyschromia, cytostatic-induced mucositis, periodontitis or tonsillitis, characterized by the utilization of an ozonized vegetable oil or fat with a PI between 600 – 800 units and an AI lower than 15 units.
15. Use of any ozonized vegetable oil or fat, according to the Claims 1-11, for the treatment of genital urinary tract diseases, such as the infection by human papilloma virus and vulvovaginal candidiasis, characterized by the utilization of an ozonized vegetable oil and fat with a PI between 600 – 800 units and an AI lower than 15 units and ovules containing between 5 – 40 % weight of ozonized vegetable oil or fat.
16. Use of any ozonized vegetable oil or fat, according to the Claims 1-11, for the treatment of oxyuris, characterized by the utilization of an ozonized vegetable oil or fat with PI between 600 – 800 units and an AI lower than 15 units.
17. Use of any ozonized vegetable oil or fat, according to the Claims 1-11, for the treatment of genital herpes simplex and tynea pedis, characterized by the utilization of a cream containing between 20 – 50 % weight of ozonized vegetable oil or fat.
18. Use of any ozonized vegetable oil or fat, according to the Claims 1-11, for the treatment of gastroduodenal ulcers, characterized by the administration of capsules or drops containing an ozonized vegetable oil with a PI between 600 – 800 units and an AI lower than 15 units.
19. Anti-inflammatory action of the ozonized vegetable oils and fats, according to the Claims 1-11, through their application in the treatment of external hemorrhoids, characterized by the use of an ozonized vegetable oil or fat with a PI between 600 – 800 units and an AI lower than 15 units.
20. Use of any ozonized vegetable oil or fat, according to the Claims 1-11, for the treatment of bedsores and lower limb ulcers caused by chronic venous insufficiency,

characterized by the utilization of an ozonized vegetable oil with a PI between 600 – 800 units and an AI lower than 15 units.

21. Use of any ozonized vegetable oil or fat, according to the Claims 1-11, for cosmetic use as a revitalizing agent of the damaged skin, characterized by the utilization of a cream containing between 5 – 30 % weight of ozonized vegetable oil or fat.